Qualcomm Predation

Predatory pricing in market for chipsets

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The background

- The EC fined Qualcomm €242 for abusing its market dominance by selling its 3G UMTS baseband chipsets below cost price between 2009 and 2011 to Huawei and ZTE in order to prevent Icera from gaining a foothold in the market
- Icera's chipstes became good substitute for Qualcomm's chipsets in the data card (dongle) market; By 2010 Qualcomm became concerned that Icera would start offering 3G chipsets for smartphones
- The EC story: Qualcomm prevented Icera from gaining reputation and scale in the dongle segment and maybe also funds needed to develop 4G chipsets to stop its expansion into the smartphone segment (but Nvidia which acquired Icera in mid 2011 has plenty of funds)

Legal standards in the EU

- AKZO 1991, ECJ:
  - “Prices below average variable costs … by means of which a dominant undertaking seeks to eliminate a competitor must be regarded as abusive”
  - “prices below average total costs … must be regarded as abusive if they are determined as part of a plan for eliminating a competitor”
- Tetra-Pak II, 1996, ECJ:
  - “It would not be appropriate to require in addition, in order to categorize its pricing as predatory, proof that the undertaking concerned had a realistic chance of recouping its losses.
- Wanadoo, European court of first instance, 2007:
  - “The Commission was therefore right to take the view that proof of recoupment of losses was not a precondition to making a finding of predatory pricing.”
- The rules: intent, price-av. cost tests, no recoupment

Economic theory of predation

- Every reasonable model of predation must have two components
- The predatory price, p, must be sufficiently low to induce the entrant, E, to exit:

$$\underbrace{\pi_E(p)}_{\text{E's profit under predation}} + \underbrace{\frac{\delta\pi_E(p^*)}{1-\delta}}_{\text{E's future profit if it stays}} < 0$$

- This condition though depends on E's profit, not on I's profit, so I's cost is irrelevant $\Rightarrow$ the predatory price is independent of I's cost
  - A caveat: I's cost affects $\pi_E(p^*)$, but clearly the above condition does not imply anything about the relationship between p and I's cost

Economic theory of predation

- Charging p and inducing E to exit must be profitable for the incumbent, I)otherwise he will not engage in predation):

$$\underbrace{\pi_I(p) + \frac{\delta \pi_I(p^M)}{1-\delta}}_{\text{I's profit under predation followed by monopoly profit forever}} \geq \underbrace{\frac{\pi_I(p^*)}{1-\delta}}_{\text{I's profit under Acoommodation forever}}$$

- Clearly, I's cost affects both $\pi_I(p)$, $\pi_I(p^M)$, and $\pi_I(p^*)$, but once again, the condition does not imply anything about the relationship between p and I's cost

- Conclusion: no theoretical basis for comparing p and I's cost, but recoupment is an integral part of the story
  - We can have predation with price above cost
  - We can have prices below cost that are not predatory

Why would a firm set prices below cost?

- Building up customer base (Amazon, WeWork, Uber, Facebook, etc)
- Introductory offers to signal quality
- Building up a network that you can monetize later (Youtube, Whatsapp)
- Learning by doing (the first aircraft is sold at below cost because the cost is declining)
- Loss leaders
- Sell a razor at below cost to make money on razorblades (printers, coffee machines, flights)

Selling at below cost

- In all of the above examples there's a profit somewhere else: future products or complementary products (the loss is an investment in future or in other products)
- The relevant product is not standalone and one cannot compare its price to cost in a simplistic manner:
  - a supermarket sells a bundle not individual products
  - Gillete sells shaves not razor or razorblades
  - Lufthansa sells flights from Tel Aviv to NYC, not TLV-FRA and FRA-NY
- Predation is also an investment in the future, but there are other investments $\Rightarrow$ to show predation you need to rule out other explanations

Maxwell House vs. Folgers

- After 3 months, MH started to sell regular coffee below cost or at unreasonably low prices, used extensive consumer and trade promotions and advertising, and used a fighting brand of regular coffee
- Eventually P&G stopped its expansion, and, in particular, did not to enter the NYC market

What do we learn from Maxwell House vs. Folgers?

- The real battle was for NYC (chipsets for smartphones) but predation occurred "on the way to NYC" (in chipsets for dongles)
- The coffee market is huge; predation occurred only in Cleveland, Philadelphia, Pittsburgh, and Buffalo $\Rightarrow$ predation in a small segment of the market can be effective
- Folgers used Cleveland, Philadelphia, Pittsburgh, and Buffalo as test markets for its coffee (similar to Icera showing MNO's that its chipsets are working and may be used in smartphones)

Bottom line

- The debate about LRAIC is unfortunate; it's neither necessary nor sufficient for predation and/or for predation to be harmful
- The commission's story is plausible (and similar to Maxwell House and Folgers), but was there predation?
- To tell, we need much more detail, which the parties do not disclose
- In particular, we need to know
  - Was there any other convincing reason for Qualcomm to lower prices? Was it an investment in "monopolization" or in something else?
  - Was the price low enough to induce Icera to abandon its entry plans? Icera could have abandoned its plans to entry even without predation
  - We have correlation: Qualcomm lowered prices and Icera does not enter. But is there causation?

Correlation vs. causation